FITCH RATES HOWARD COUNTY, MD'S \$227.135MM GOS 'AAA'; OUTLOOK STABLE

Fitch Ratings-New York-05 December 2017: Fitch Ratings has assigned a 'AAA' rating to the following Howard County bonds:

- --\$159.39 million consolidated public improvement refunding bonds, 2017 series D;
- --\$67.7 million metropolitan district refunding bonds, 2017 series E.

The county's Issuer Default Rating (IDR) is 'AAA'.

The Rating Outlook is Stable.

SECURITY

The GO bonds are payable from the county's full faith and credit pledge and its unlimited taxing power.

ANALYTICAL CONCLUSION

The 'AAA' Long-Term IDR and GO ratings reflect the county's strong growth prospects, low long-term liability burden, healthy reserves, and broad budgetary tools.

Economic Resource Base

Howard County is a wealthy Baltimore-Washington, D.C. suburban enclave with a diverse economy of its own. As of 2016, the county's population was 317,233; growth has averaged approximately 1.7% annually.

KEY RATING DRIVERS

Revenue Framework: 'aaa'

Revenues have been rising at a pace well above the rate of U.S. GDP growth and Fitch expects this trend to continue. The county has the independent legal ability to raise property tax revenues in an unlimited amount.

Expenditure Framework: 'aa'

Education drives the county's spending needs and any reduction would require approval from the state. Nevertheless, the county's ability to make spending cuts when needed is solid. Carrying costs related to debt and pensions are moderate.

Long-Term Liability Burden: 'aaa'

The county's liability burden is low and future debt needs are manageable.

Operating Performance: 'aaa'

Fitch expects the county to maintain a high level of fundamental financial flexibility throughout economic cycles based on its expenditure and revenue flexibility and conservative fund balance policy. Financial operations are supported by solid economic and revenue prospects.

RATING SENSITIVITIES

MAINTENANCE OF STRONG FINANCIAL PROFILE: The rating assumes the county's continued strong financial flexibility, revenue growth prospects and budget controls.

CREDIT PROFILE

The county is among the wealthiest in the nation, featuring a highly educated workforce. Residents are employed throughout a deep and diverse economy, led by the federal government. Fort Meade, located in nearby Anne Arundel County (AA+/Stable), is a major driver of long-term regional growth and Maryland's top employer. The fort, already a home base to all five military services and several federal agencies including the National Security Agency, has been named the headquarters for the U.S. cyber-security center. The county estimates that federal agencies located at Fort Meade employ approximately 12,500 county residents.

The education and healthcare sectors, led by John Hopkins University Applied Physics Laboratory, play a pivotal role in the economy and lend diversity to the notable concentration in government. While employment growth has slowed, the county continues to generate and retain jobs through its economic development efforts. The unemployment rate remains below the state and national averages.

The county continues to focus its economic development efforts in downtown Columbia. Most recently Tenable, Inc., a cybersecurity software company, announced its plan to expand its company headquarters to downtown Columbia bringing 900 employees to the county.

Revenue Framework

Property taxes are the largest revenue source for the county at 49% of general fund revenues followed by income taxes at 42%. Homes values have consistently increased over the past five years according to Zillow and the one-year forecast shows a 1.6% increase. Assessed values, which lag the actual housing market due to the rolling three-year reassessment cycle, have increased consecutively over the past four years. The fiscal 2018 budget includes a 2% increase in assessed value to \$50.6 billion. According to unaudited fiscal 2017 results, income tax revenues increased for the seventh consecutive year and are budgeted to increase 3.2% in fiscal 2018.

The county's natural pace of general fund revenue growth has trended above U.S. GDP growth without any tax policy changes. Given ongoing economic development as well as positive housing and employment trends, revenue growth prospects are strong.

The property tax levy and rate are not subject to a cap. The county has not increased the property tax rate in 16 years. The income tax rate was increased in 2004 to the maximum rate of 3.2%.

Expenditure Framework

The county's largest expenditure is education at roughly 58% of general fund expenditures, followed by public safety at 12%.

Based on the county's history of structural balance and no immediate significant spending pressures, Fitch expects spending growth to remain in line with revenues.

According to the state's maintenance of effort (MOE) mandate, education spending cannot decline YOY without state approval. Approximately 50% of the county's workforce is unionized with one- or two-year contracts. However, strikes are not permitted and arbitration is not binding on the county council's budget. Carrying costs associated with debt service, actuarially determined pension payments (including the normal cost for teachers' pensions) and other post-employment benefits (OPEB) actual contributions totaled about 15% of unaudited fiscal 2017 governmental spending; debt service accounted for about 8%.

Long-Term Liability Burden

Overall net debt plus the county's unfunded pension liability equals a low approximately 7% of personal income excluding self-supporting metropolitan district utility debt. The county will repay 65% of outstanding principal within 10 years, leaving adequate capacity to fund future borrowing needs. The county's fiscal 2019-2023 capital plan totals \$1.3 billion, excluding utility-related projects. While the plan includes nearly \$1 billion of bond proceeds, the county expects actual future borrowing to approximate \$100 million annually, allowing the county to maintain debt service costs at 10% of revenue or less. Fitch expects currently low debt levels to increase modestly but remain low relative to personal income.

The county provides pension benefits to its employees through two single-employer defined benefit plans -- a general employees plan and a fire and police plan -- and annually makes the actuarially required contribution. As of July 1, 2017, the general employees' plan was funded at 86% and police and fire employees at 76%. Fitch estimates the funded ratios at approximately 72% and 62%, respectively, using Fitch's more conservative 6% discount rate compared to the county's rate of 7.5%. The aggregate adjusted net pension liability totaled approximately \$447 million or about 2% of personal income. The county also provides a length of service plan for volunteer public safety employees, which is currently unfunded but has a minimal net pension liability.

The county administers an OPEB trust fund that provides benefits for its retirees, which has a balance of about \$86 million as of fiscal year-end (FYE) 2017. As of the 2016 valuation the unfunded liability is \$908.5 million or 4% of personal income and the plan is 10% funded.

Operating Performance

Fitch assesses the county's inherent budget flexibility as superior given the county's strong legal ability to increase revenue and reduce expenditures. In response to a weak revenue growth environment during the last recession, the county used reserves to balance operations. During the recovery the county rebuilt reserves to currently healthy levels. The unrestricted fund balance at FYE 2017, according to unaudited results, was \$125.5 million or 11.7% of general fund spending, well above the county's 7% policy. Additionally, the county funds fire and rescue and recreation services outside of the general fund. When Fitch combines these funds with the general fund, available fund balance increases to \$184.4 million or 15% of combined spending at YE 2017.

Based on historical results, Fitch would expect a moderate economic downturn to result in a modest decline in revenues in the first year of a downturn, followed by a prompt rebound. The county's financial position should remain solid throughout the economic cycle given strengthened reserves and conservative management practices.

The fiscal 2018 budget is a 3.6% increase over fiscal 2017 and includes a \$9.9 million fund balance appropriation while maintaining the property and income tax rates. The budget increases included \$2.9 million above the MOE required level for education, an additional \$3 million for county employer OPEB over the fiscal 2017 total contribution, a cost of living salary increase and \$295 million for capital spending. According to management, year to date operations are in line with budget. Based on the county's multi-year financial forecast, Fitch expects operations to be balanced and reserve levels to remain above the county's 7% policy.

Contact:

Primary Analyst
Evette Caze
Director
+1-212-908-0376
Fitch Ratings, Inc.
33 Whitehall Street
New York, NY 10004

Secondary Analyst Andrew Hoffman Director +1-212-908-0527

Committee Chairperson Barbara Ruth Rosenberg Senior Director +1-212-908-0731

Date of Relevant Rating Committee: Sept. 8, 2016

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis and InvestorTools.

Media Relations: Sandro Scenga, New York, Tel: +1 212-908-0278, Email: sandro.scenga@fitchratings.com.

Additional information is available on www.fitchratings.com

Applicable Criteria

U.S. Tax-Supported Rating Criteria — Effective April 18, 2016 to May 31, 2017 (pub. 18 Apr 2016)

https://www.fitchratings.com/site/re/879478

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: HTTPS://WWW.FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS. IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT WWW.FITCHRATINGS.COM. PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. DIRECTORS AND SHAREHOLDERS RELEVANT INTERESTS ARE AVAILABLE AT HTTPS://WWW.FITCHRATINGS.COM/SITE/REGULATORY. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2017 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third- party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers,

insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001